

predetermined optical pattern having a continuously varying optical transmissivity at different locations on the mask;

using the mask to expose a photoresist layer on the substrate to radiation that passes through the mask; and

removing material from at least one of the photoresist layer and the substrate, to provide a predetermined varying thickness layer as determined by the grayscale pattern on said grayscale mask.

20. (New) A method of fabricating a three-dimensional micro optic element on a substrate, comprising:

A<sub>1</sub>  
cont. providing a grayscale mask having portions formed thereon which are responsive to electron beam radiation to change the optical density of a surface layer

exposing the mask to an electron beam of selected charge density over a grid of discrete locations on the mask to provide a predetermined grayscale pattern of continuously varying optical transmissivity on the mask; and

exposing the photoresist layer to radiation transmitted through the mask.

---